July 11, 2011

OVERNIGHT DELIVERY—VIA FEDEX

Ms. Susan Spalding (MC-6PD)
Associate Director
RCRA Multimedia Planning and Permitting Division
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Mr. James Sales (MC-6PD)
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

RE: Commercial Metals Company /Corpus Christi Recycling Facility (4614 Agnes St., Corpus Christi, TX)
Application for a 40 CR 761.61(c) Risk Based Cleanup

Dear Ms. Spalding and Mr. Sales:

For its recycling facility located at 4614 Agnes Street, Corpus Christi, Texas, Commercial Metals Company (CMC) submits the enclosed Application to perform a risk-based cleanup of the polychlorinated biphenyl (PCB)-impacted soil s in accordance with 40 Code of Federal Regulations (CFR) §761.61(c). Weston Solutions Inc. (WESTON®) has prepared this Application on behalf of CMC. The CMC site is currently enrolled in the Texas Commission on Environmental Quality (TCEQ) Voluntary Cleanup Program (VCP) to address other chemicals of concern.

This Application modifies the remediation approach that was outlined in the July 1, 2010 revised application. The comments received during a December 3, 2009 meeting, the September 20, 2010 conference call, and in your letter of April 13, 2011 are addressed within this document. We appreciate your review of the draft Application that CMC forwarded to you on June 30, 2011 and your acknowledgement that it was sufficient to submit as a final to the agency.

After EPA approval is received, CMC will implement the project and schedule described in the Remediation Work Plan. We respectfully request your concurrence with this proposal and will contact you regarding a meeting to discuss it further.

Please contact me at mike.peters@cmc.com or call (830) 372-8305, or Bob Chapin at robert.chapin@westonsolutions.com or (512) 651-7113 for technical questions pertaining to this approach.

Sincerely,

Commercial Metals Company

Mike Peters, Director of Environmental

Attachment: The Application, dated July 12, 2011

cc: Otu Ekpo Otu, TCEQ
Elizabeth Hurst
Randall Walker
Robert I. Chapin, Weston Solutions, Inc..

APPLICATION FOR 40 CFR 761.61(c)
RISK-BASED CLEANUP AT THE
CMC RECYCLING FACILITY

Prepared for

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
and the
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY PCB-SPECIFIC PORTION

On behalf of

CMC AMERICAS
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Prepared by

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July 12, 2011

W.O. No. 14160.001.004

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LIST OF ACRONYMS

ACGIH	American Conference of Governmental Industrial Hygienists
APAR	Affected Property Assessment Report
bgs	below ground surface
CFR	Code of Federal Regulations
CMC	Commercial Metals Company
COCs	chemicals of concern
COP	Community Outreach Plan
cyds	cubic yards
EPA	Environmental Protection Agency
ft	feet/foot
IDW	investigation-derived waste
mg/kg	milligrams per kilogram
mg/m^3	milligrams per cubic meter
PCB	polychlorinated biphenyls
PCL	protective concentration limits
PDR	PersonalDataRAM
PMZ	Plume Management Zone
RACR	Response Action Completion Report
RCRA	Resource Conservation and Recovery Act
ROW	right-of-way
SVOCs	semi-volatile organic compounds
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TCLP	Toxicity Characteristic Leaching Procedure
TMP	Temporary Measures Plan
TNRCC	Texas Natural Resource Conservation Commission
TPH	total petroleum hydrocarbons
TRRP	Texas Risk Reduction Program
TSCA	Toxic Substances Control Act
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds
VCP	Voluntary Cleanup Program

WESTON Weston Solutions, Inc.

EXECUTIVE SUMMARY

For its facility located at 4614 Agnes Street, Corpus Christi, Texas (the Site), Commercial Metals Company (CMC), dba CMC Recycling, submits this application to address the remediation of polychlorinated biphenyl (PCB)-affected soils, using a risk-based disposal approach as outlined in 40 Code of Federal Regulation (CFR) 761.61(c) of the PCB regulations promulgated pursuant to Section 6(e) of the Toxic Substances Control Act (TSCA). CMC is in the process of seeking closure of this Site through the Voluntary Cleanup Program (VCP) at the Texas Commission on Environmental Quality (TCEQ). As a result of the environmental assessment under the VCP, PCB concentrations were identified in the soils. In order to finalize the comprehensive cleanup proposed under the VCP, CMC seeks approval from the Environmental Protection Agency (EPA) to remediate the PCB-affected soils as summarized below and as more fully discussed in this application.

The general plan for the proposed remediation involves both the excavation of PCB-affected soil along the edge of the Site and areas on the Site. Approximately 10 acres of the Site will be isolated and used for in-situ burial and covered with a compacted clay cap, which will be at least 6 inches in thickness. The proposed clay cap will extend approximately 1,450 feet between the northern and southern boundaries of the Site, forming a rectangle area which is oriented north south, with the south end extending to the right-of-way of Agnes Street. The north end of the cap stops at Terminal Street, an undeveloped road easement. To the extent possible, all impacted soil and concrete will be placed in the clay capped area. The excavated soil along the property lines, off-site, will be transported off-site for proper disposal. In addition, any PCB-affected soil which exceeds 500 mg/kg will be transported off-site for disposal. Post verification sampling will be completed according to Subpart O with proposed modifications.

Further specifics of the proposed remediation will include the following:

1. **On-site soils with PCB concentrations greater than 500 mg/kg and off-site soils with PCB concentrations greater than 1 mg/kg will be excavated and disposed off-site.** Excavated PCB-affected material will be stockpiled and stored in a secure location. Excavated soils for disposal with concentrations of PCBs greater than 50 mg/kg will be stored separately from soils with concentrations less than 50 mg/kg.

2. **On-site soils with PCB concentrations greater than 1 mg/kg, but less than 500 mg/kg, that are not under the clay cap will be moved to the area of the proposed clay cap. An engineered clay cap will be installed with perimeter fencing in order to prevent exposure to PCB concentrations in soils greater than 1 mg/kg.** The purpose of the cap is to prevent contact with soils affected by metals and PCBs. The cap includes an approximately 10-acre area already affected by PCBs. The cap will be constructed of imported clay, which will be placed in a maximum of 8-inch lifts and compacted to a minimum 95% standard proctor, to a total thickness of 2 feet (ft).

3. **Selected concrete samples will be collected from high traffic floor surfaces prior to demolition of any buildings to determine the appropriate disposal method for this debris. In order to construct the clay cap, some buildings located on the property will need to be demolished.** Selected samples will be collected from high-traffic floor surfaces in buildings planned for demolition that may be affected by PCBs (concrete from equipment storage areas and building entryways, etc) to determine the residual concentrations of PCB (if any) and the appropriate disposal method for the debris.

4. **Affected concrete located in areas proposed for soil excavation will either be removed for off-site disposal, placed under the clay cap, or remediated in accordance with 761.79.** The majority of concrete outside the proposed fenced-in cap area will likely be demolished as part of soil excavation activities. Concrete with reported PCB concentrations between 1 mg/kg and 50 mg/kg will be disposed of under the clay cap, or at a chemical waste landfill permitted by EPA to receive material with PCB concentrations less than 50 mg/kg. Material with PCB concentrations greater than 50 mg/kg, but less than 500 mg/kg, will be moved to areas that will be under the clay cap or disposed of at a chemical waste landfill permitted by EPA to receive material with PCB concentrations more than 50 mg/kg. Concrete areas with PCB concentrations greater than 500 mg/kg will undergo remediation including the removal of the top 1/8-inch of concrete surface. Confirmation samples will be collected to determine the appropriate disposal method for the rest of the concrete (disposal off-site or disposal under the clay cap if concentrations are less than 500 mg/kg). Concrete dust generated during remediation activities will be disposed at a TSCA-approved chemical waste landfill approved under 40 CFR 761.61.

5. **Excavated material for off-site disposal will be managed in accordance with TSCA and Resource Conservation and Recovery Act (RCRA) disposal rules.** The excavated materials designated for removal from the site will be analyzed to confirm that they will be deemed either a Class I or Class II Non-Hazardous Waste under Texas Solid Waste Rules. Material that is classified as hazardous waste will be disposed off-site in accordance with TSCA and RCRA. Material with concentrations of PCBs less than 50 mg/kg will be disposed of at a chemical waste landfill permitted by EPA to receive material with PCB concentrations less than 50 mg/kg. Material with concentrations greater than 50 mg/kg PCBs will be disposed at a TSCA-approved chemical waste landfill approved under 40 CFR 761.61.

6. **Post verification sampling will be completed using a modified Subpart O procedure.** After excavation is complete, confirmation samples will be collected to verify concentrations of PCBs greater than the cleanup levels (500 mg/kg on-site and 1 mg/kg off-site) have been removed. Instead of using the 5-ft sampling grid outlined in 40 CFR 761.283(b), CMC proposes using a modified sampling grid of 10 ft. Samples collected using the 10-ft grid will be composited per 40 CFR 761.289(b)(1). This is appropriate based on the size of the areas that will be sampled and the spacing being between one-fifth and one-tenth of that approved for delineation sampling.

7. **A drainage channel and stormwater retention basin will be constructed for the uncapped area to capture and hold stormwater runoff associated with a 5-year storm event.** The channel and stormwater retention basin will follow best management practices to capture and contain initial rainfall runoff in a retention pond. This system will have an overflow weir for runoff in excess of the 5-year storm to discharge from the site to an adjacent existing drainage channel. Drainage channel and stormwater retention basin design will need to be approved by the City of Corpus Christi and will be subject to the TCEQ Industrial Stormwater Multi-Sector General Permit requirements.

8. **Institutional controls will be placed on the property as required by the VCP for on-site closure of commercial/industrial property.** The property is subject to the Texas Risk Reduction Program (TRRP) requirements for deed restrictions for properties containing concentrations of chemicals of concern in soils exceeding the residential protective concentration levels. Institutional controls are also required under TRRP for sites where a physical barrier is maintained to prevent exposure to soils that contain chemicals of concern (COCs) (including PCBs) in excess of the protective concentration levels. The institutional control will describe and provide the location of the physical control (cap), as well as the extent of the soil that exceeds TCEQ-approved protective concentration levels for all COCs (including PCBs). The institutional control will also describe the required maintenance and inspection required for the cap. This program will be implemented unless and until TCEQ and EPA approve any modification. The deed restriction will not be removed or modified without prior approval from TCEQ and EPA. An example is included in Appendix E.

9. **A final Operation and Maintenance Plan will be implemented as part of Post-Response Action Care.** Post-response action care will be performed so that property use will not disturb the integrity of the implemented controls. Activities will include quarterly inspections and maintenance of the fence and cap. Inspections will be completed by a person who has been trained to complete these inspections. The inspections will ensure that the clay thickness is not compromised by erosion or settling. Areas of erosion or settling noted will be repaired. Maintenance will include a regular mowing and landscape program to maintain vegetated areas of the clay cap. The quarterly inspection will also include the stormwater management system to identify signs of obstructed draining or deterioration. Additional detail is included in Section 4.2.6.3, and an example inspection checklist is included in Appendix F.

The anticipated schedule for remediation activities is set forth in the chart below. Because of the interrelated nature of these tasks, a delay in one task could push the sequence and change the schedule of the other tasks.

Activity	Anticipated Start Date
Approval of Application for Risk Based Cleanup by EPA	September 2011
Public Comment Period and Responses/Changes (if necessary)	October - November 2011
Final Engineering Design and Bid Specifications	December 2011 – January 2012
Bid Selection	February 2012
Relocation	March – April 2012
Concrete Demolition Activities	May 2012
On-Site and Off-Site Soil Excavation and Confirmation Sampling	June - July 2012
Backfilling of Excavated Areas and Construction of Clay Cap	August 2012
Final Grades, Stormwater Retention Improvements, and Final Fencing	October 2012
Final Summary Report submitted to EPA and TCEQ	December 2012

1. INTRODUCTION

1.1 PURPOSE

The purpose of this application is to obtain approval of a risk-based remediation of polychlorinated biphenyl (PCB)-affected soils pursuant to 40 Code of Federal Regulations (CFR) 761.61(c) for Commercial Metal Company's (CMC's) Corpus Christi recycling facility, which will not pose an unreasonable risk of injury to health or the environment. A previous version of this application was submitted to the Environmental Protection Agency (EPA) in October 2009. Based on comments received during a December 2009 meeting with the EPA, CMC submitted a revised version in July 2010. Further, a report summarizing geostatistical analysis of the sampling results was provided for EPA review on December 20, 2010 and was approved April 13, 2011. (The EPA comment letter and the geostatistical evaluation is set forth in Appendix A.) EPA's April 13, 2011 letter requested that CMC submit a revised application taking into account the future use of the site, (i.e., whether or not Shredder operations will occur at the site), and certain specific information based on this future use. CMC has determined that no shredder operations will occur at the site; thus, this application will address the requirements contained in 40 CFR 761.61(c) and the listed items contained in EPA's letter pertaining to "no shedder operations." In addition to the proposed remediation of PCB-affected soils contained in this application, the overall closure of the site is being pursued through the Voluntary Cleanup Program (VCP) at the Texas Commission on Environmental Quality (TCEQ).

The application includes a PCB Assessment Strategy and Results section which details the nature of the contamination, including kinds of materials as set forth in 40 CFR 761.61(a)(3)(i)(A). In addition, this section (along with cited tables and site maps showing PCB concentrations measured in all pre-cleanup characterization samples) provides a summary of the procedures used to sample contaminated and adjacent areas and the location and extent of the identified contamination area as set forth in 40 CFR 761.61(a)(3)(i)(B) & (C). The application also contains a Remediation Work Plan, which details the cleanup plan for the site, including schedule, disposal technology, and approach as set forth in 40 CFR 761.61(a)(3)(i)(D).

1.2 SITE DESCRIPTION

CMC's facility is a 17.2-acre property located at 4614 Agnes Street, Corpus Christi, Nueces County, Texas. The Site is bounded by Navigation Blvd. and the City of Corpus Christi water storage facility to the west, various commercial/industrial businesses to the east, Texas-Mexican Railroad right-of-way (ROW) and Agnes St. to the south, and a radio tower and undeveloped land to the north.

CMC has recently purchased the formerly off-site property, known as the former Flato property, to the north and is in the last stages of acquiring the adjacent, undeveloped portion of Paxton Street right-of-way as part of the remediation, northwest corner of Site. The acquisition will not change the remediation approach, but may affect volume of soils disposed off-site. Property location and boundary maps are provided as Figures 1 and 2.

1.3 SITE OPERATIONAL HISTORY (ADDRESSES ITEM #1 IN EPA'S LETTER DATED APRIL 13, 2011)

Prior to CMC's purchase of the Site in 1976, General Export Iron and Metal Company operated a secondary metals processing facility at the same location since 1951. In 1998, CMC purchased the adjacent western tract along Navigation Boulevard that was a former icehouse. No metals processing has occurred on this property, and CMC currently uses this property for equipment storage.

The existing operation includes the purchase and transport of both ferrous and non-ferrous metals for recycling. The recycled ferrous metal is shipped to steel mini mills as a feed stock for making new steel. The non-ferrous metal stream is sold on the open market. Vendors bring recycled metals to the facility. The vendors are paid market price for the various metals sold for recycling. The recycled metals are then sorted into various storage containers and stockpiles for additional processing. Although ferrous materials were previously processed on-site using several pieces of large equipment, they are now transported off-site for further processing.

Offices and warehouses are located in the southern portion of the site. This portion of the facility is surfaced with concrete. The remainder of the facility is typically covered by stockpiles of material pending processing. An On-site Property Map is included as Figure 2.

1.4 ANTICIPATED FUTURE PROPERTY USE

Future use of the non-capped portion of the Site (the southern part of the Site, consisting of approximately 6.3 acres) is anticipated to be traditional secondary scrap metal recycling. These operations typically include the receipt of recycled metal, both ferrous and non-ferrous, from the public and commercial vendors. The recycled metal is screened, weighed, and sorted by metal type. The ferrous stream will be consolidated and shipped off-site for further processing. The non-ferrous streams will be separated by metal type, aggregated, and packaged for sale on the open market. The engineered cap portion of the Site will be fenced and no activities will occur on the cap.

2. PCB ASSESSMENT STRATEGY AND RESULTS [40 CFR 761.61(a)(3)(i)(A)&(B)]

Before describing the PCB assessment strategy and results, it is necessary to clarify the areas sampled and how they were designated. Originally the areas investigated were generally divided into four on-site sampling areas: Proposed Shredder Area, Non-Shredder Area, Hot Spot Area, and Proposed Maintenance Building Area, as you will note on previous maps submitted to EPA. These designations were based on planned future use of the facility to include a shredder and maintenance building. Due to the decision that the Site will not have shredder operations or a maintenance building as previously planned, a new remediation approach was established. As a result, the sampling area names are no longer applicable as they do not indicate the anticipated future use of these areas. In order to more accurately describe the sampling locations on the Site, the names of the areas have been changed to North, Central, Hot Spot, and South.

The overall assessment activities included collecting soil, groundwater, and concrete samples. Table 1 lists all PCB analytical results for soils. Table 2 summarizes all PCB analytical results for concrete, and Table 3 summarizes all PCB analytical results for groundwater. Figure 4 shows all soil sample locations evaluated for PCBs during site assessment activities and the grid spacing outlines that were used in each area. Figure 5 depicts the locations of all monitoring wells associated with the facility. All North Area sample locations are depicted in Figure 6. All Central Area sample locations (including those collected in the Hot Spot Area) are depicted in Figure 7. South Area sample locations are depicted in Figure 8. Concrete sample locations are depicted in Figure 9. Figures 10A and 10B depict sample locations collected from off-site properties to the west and east, respectively.

2.1 ASSESSMENT STRATEGY

The assessment strategy described in 40 CFR Part 761, Subpart N is designed for identification and delineation of smaller point sources. A larger grid spacing at this facility was justified based on the nature of activities at the Site and the absence of a specifically identifiable PCB "source." Each area investigated was assessed differently based on its size, historical use, and expected use after remediation at the time of assessment. A report summarizing the geostatistical analysis was provided for EPA review on December 20, 2010 and was approved in the April 13, 2011 EPA

comment letter. This letter and report are included in Appendix A. In general, strict sampling grid intervals detailed in Subpart N (40 CFR 761.260-274) of the PCB regulations was not appropriate site-wide due to the large size of the Site (17.2 acres) and the plan to cap the entire PCB-affected area. Use of these procedures is required when using a self-implemented remediation approach, but is not specifically required when using a risk-based remediation approach. The large property area at the Corpus Christi facility made standard grid interval sampling impractical. Instead, sample grid spacing common to environmental assessment activities was used. Many samples were also analyzed for non-PCB constituents in order to assess these constituents as required by the TCEQ VCP. Customary and routine sample spacing associated with VCP assessments was used and approved for this Site by the TCEQ in a June 18, 2009 letter.

2.1.1 On-Site Soil Assessment Strategy

A 50 feet by 50 feet grid spacing was used in the North Area based on the size of the assessed area (approximately 6.44 acres). This grid spacing is smaller than that used in the Central Area (100 feet by 100 feet) because the majority of the North Area is unpaved. A focused 10 feet by 10 feet sample grid was used in a portion of the Central Area to delineate affected material associated with a historical data point of elevated PCB concentrations (2,670 mg/kg). Soils in the South Area were not expected to contain significant concentrations of PCBs. In February 2009, samples from fifteen 30 feet by 30 feet grids were collected in the Proposed Maintenance Building footprint (this proposed building is no longer planned, but was to be located in the area designated in the Figures attached hereto as in the "South" area). Each grid was split into nine 10 feet by 10 feet sub-grid squares. Samples were collected from each sub-grid and composited into one sample representing the 30 feet by 30 feet grid. Based on some reported PCB results between 1 mg/kg and 50 mg/kg during the February 2009 sampling event, construction of the building was put on hold, and grab sampling was performed during May 2009 on a 100 feet by 100 feet grid over the larger South Area to generate data comparable to that collected at the remainder of the site.

During a conference call held on September 20, 2010 (EPA, CMC, TCEQ, and Weston Solutions Inc [WESTON®]), EPA requested a more detailed justification for soil sampling intervals used to

assess the lateral and vertical extents of PCB-impacted soil under 40 CFR 761.61(c). In response to this request, WESTON prepared a geostatistical evaluation of the existing PCB soil data to demonstrate the applicability of geostatistical techniques for identification of overall data worth, data gaps, and optimal future sampling strategies. The geostatistical analysis submission, dated December 21, 2010, served as an independent evaluation of existing Total PCBs soil data for the delineation of site impacts. EPA approved this document in the April 13, 2011 comment letter. (A copy of which is included in Appendix A.)

The geostatistical analysis of the CMC Site Total PCBs data set concluded that the existing data set is geostatistically robust and adequate for characterization of Total PCBs concentrations for the 0 to 1 ft and 0 to 5 ft intervals within the property boundary. The Total PCBs data are correlated, and concentrations can be estimated with a measurable level of statistical confidence between sample points that are no greater than 300 ft apart.

No true data gaps were identified; however, one isolated area of data weakness was identified as shown in the figures contained in the report on the geostatistical analysis (Appendix A). Addressing this particular data weakness is not critical from the perspective of completing delineation within the site boundary, but would provide greater resolution to support risk characterization for the site. Because this area will be located under the clay cap, no additional sampling is required.

2.1.2 Off-Site Assessment Strategy

Off-site assessment focused on identification of the extent of affected soil material using approximately 200-ft grid spacing. The geostatistical analysis also addressed potential future horizontal delineation needs along the boundary perimeter. This analysis was used to develop a prescribed optimal sampling strategy based on 150-ft spacing. The geostatistics demonstrated that sample spacing closer than 150-ft would provide redundant data, and alternatively, spacing significantly greater than 150-ft would result in a potential data gap. Confirmation samples will be collected from excavated areas using a modified Subpart O (40 CFR Part 761, Subpart O) sampling methodology (10-ft grid with composite sampling along bottom and sidewalls similar to that previously used in the South Area). This is closer than the optimal sampling strategy of 150-ft spacing outlined using geostatistics; thus, it is appropriate for off-site use.

2.1.3 Concrete Assessment Strategy

Concrete samples were collected during February and November 2009, and February 2010 at a frequency of one sample from a 50 ft by 50 ft grid. Concrete samples were not collected from all areas of the facility, as it was anticipated these areas would be resurfaced with new concrete during remediation. Samples were collected during February and November 2009 from concrete, which was likely to be removed during the proposed Shredder construction (note, a Shredder will not be constructed on site) or remediation activities. However, after discussions with EPA during December 2009, additional sampling was completed during February 2010 from concrete anticipated for inclusion in the previously proposed concrete cap. Based on the remediation strategy outlined in the Remediation Work Plan in Section 4, additional concrete samples will be collected from the flooring of high traffic areas (entry ways or loading docks, etc) to assess buildings planned for demolition.

2.2 RESULTS DISCUSSION [40 CFR 761.61(a)(3)(i)(C)]

Both PCBs and other constituents of concern were sampled for and delineated as part of site enrollment in the VCP. An Affected Property Assessment Report (APAR) and APAR Addendum summarizing soil and concrete sampling performed at the site were provided to the TCEQ in November 2008 and April 2010, respectively. These documents were provided to EPA in September 2010. This application discusses the PCB results.

2.2.1 Soil Results

The Geostatistical Analysis Report, approved by EPA in April 13, 2011, provides a summary of all PCB soil data and discusses the appropriateness of using that data for characterization purposes. (See, Appendix A) Figures 6 through 10B in this application depict PCB analytical results in soils. Table 1 in this application includes PCB analytical results from soil samples collected.

2.2.2 Concrete Results

Concrete samples were collected during February and November 2009 from existing concrete currently located in the vicinity of the North Area footprint. Results indicated seven locations in

the North Area had PCB concentrations in concrete dust exceeding 1 mg/kg. Results from two locations (CC-03 at 13.99 mg/kg and CC-22/CC-22D at 137.19 / 31.39 mg/kg) reported PCBs in concrete dust greater than 10 mg/kg. Four concrete samples collected in the vicinity of the hot spot did not report PCB concentrations in concrete exceeding 1 mg/kg. The 2009 concrete results suggest that some concrete is affected at the Site.

In response to issues raised during a meeting with EPA in December 2009, additional concrete samples were collected in February 2010. The preferred remedial approach at the time of the additional concrete sampling anticipated including existing concrete as part of the proposed concrete cap. The results indicated that the majority of concrete in the Central Area is not affected by PCB concentrations greater than 1 mg/kg. The highest PCB concentration detected in Central Area concrete was 1.148 mg/kg in CC-55.

As described in Section 4 of this application, concrete samples will be collected from the flooring of high traffic areas in buildings planned for demolition. Areas with concentrations of PCBs in concrete greater than 1 mg/kg will be disposed off-site, moved to under the clay cap, or remediated as further described in Section 4 of this application.

Refer to Table 2 and Figure 9 of this application for a summary of concrete analytical results.

2.2.3 Investigation-Derived Waste Results

Investigation-derived waste (IDW) characterization results from February 2009 indicate disposal as a Class 1 Non-hazardous Waste is appropriate. Additionally, the May 2009 IDW disposal results indicate disposal of generated soils as a Class I Non-hazardous Waste will likely be appropriate. Disposal of the IDW is pending at the time of this report and will not be completed until approval of the risk-based disposal application.

2.2.4 Groundwater Results

The results of groundwater sampling confirm that PCBs were not detected in groundwater. Figure 5 depicts the locations of all monitoring wells associated with the CMC facility. Table 3 summarizes PCB concentrations in groundwater.

3. EXPOSURE PATHWAY EVALUATION

In July 2009, WESTON performed a human health risk evaluation to quantify potential risks associated with human health (worker) exposure to PCBs in soil at the facility. An ecological evaluation performed as part of the TCEQ Texas Risk Reduction Program (TRRP) assessment indicated that ecological risks were not a concern at the facility. During a December 3, 2009 meeting, EPA indicated that an evaluation of exposure pathways is preferable to a risk assessment. Environmental media affected and the potential routes of exposure include the following:

Media	Route of Exposure
Groundwater	Dermal Ingestion
Off-Site Soils	Dermal Ingestion Inhalation
On-Site Soils	Dermal Ingestion Inhalation Leach to Groundwater (Deep On-site Soils)
Surface Water	Dermal Ingestion
Air	Inhalation

3.1 GROUNDWATER

Routes of exposure identified for groundwater include dermal exposure and ingestion. Based on a review of the groundwater sampling results contained in Table 3, no release of PCBs to shallow groundwater has been documented. A water well search conducted on November 29, 2007 (Appendix B) confirmed that no water supply wells are located within a 1-mile radius of the site (EDR, 2007). Water is supplied to this area by the City of Corpus Christi.

Though depth to groundwater is relatively shallow (10 to 15 ft below ground surface [bgs]), suggesting that release to surface water may be possible, no surface water bodies are located within 500 ft of the Site boundary. Also, the absence of detectable concentrations of PCBs in groundwater causes this exposure pathway to be incomplete.

It is worth noting that to achieve closure under the VCP program for all chemicals of concern, a Plume Management Zone (PMZ) will be required for arsenic concentrations detected above the residential protective concentration limits (PCLs) in groundwater. As part of PMZ implementation, an institutional control will be placed on the property to prevent installation of wells within the PMZ. In addition to a lack of groundwater receptors, the implementation of a PMZ will further minimize the availability of this pathway to surface receptors.

No complete pathway is present for groundwater.

3.2 SOIL

3.2.1 Off-Site Soils

Routes of exposure identified for off-site soils include dermal exposure, ingestion, and dust inhalation. These pathways are currently considered potentially complete. In order to prevent potential off-site receptors from being exposed to affected off-site soils, all soils with PCB concentrations greater than 1 mg/kg will be removed. Removal of all affected off-site soils will minimize all available routes of exposure to off-site receptors.

3.2.2 On-Site Soils

Routes of exposure identified for on-site soils include dermal exposure, ingestion, dust inhalation, and leaching of PCBs from deep-affected soils to groundwater. These pathways are currently considered potentially complete. Soil with concentrations of PCBs greater than 500 mg/kg will be removed from the Site. Soil with PCB concentrations greater than 1 mg/kg will be capped in place, or excavated and moved to the proposed capped area, thus preventing exposure. Implementation of a fenced-in clay cap will prevent exposure to underlying affected soils. As discussed in Section 3.1, the absence of PCBs in analytical results from shallow groundwater indicates that the leaching pathway is incomplete.

3.3 SURFACE WATER (ADDRESSES ITEM #6 IN EPA'S LETTER DATED APRIL 13, 2011)

No surface water body is located within 500 ft of the Site boundary; thus, no site-related surface runoff is affecting a surface water body. Due to the lack of affected groundwater, surface water

cannot be affected by PCBs via groundwater recharge. No complete exposure pathway is present for surface water. The Remediation Work Plan includes the construction of a stormwater management system to capture runoff from a 5-year storm event from the active receiving yard proposed to occupy the non-capped portion of the Site. Implementation of a Temporary Measures Plan (TMP), which was provided to EPA in May 2011 and revised in June 2011 based on comments received, will reduce off-site migration of stormwater runoff until remediation is complete. The revised version of the TMP, dated June 2011, is included in Appendix D. Upon completion of the cap, there will be no need to control stormwater coming off the cap, because the maintenance of the cap will prevent migration of affected soils.

3.4 AIR

PCBs are not volatile, but are available for inhalation exposure by airborne dust. This pathway is considered potentially complete. Construction of a clay cap and the excavation of uncapped soils to less than 1 mg/kg will minimize airborne PCB dust from uncapped areas effectively making the inhalation exposure pathway incomplete. The clay cap will be constructed of two feet of compacted clay and then layered with six inches of dirt to isolate PCBs, buried in place, from the environment. A native vegetative cover will be maintained on the cap to ensure integrity.

4. REMEDIATION WORK PLAN [40 CFR 761.61(a)(3)(i)(D)]

4.1 REMEDIATION APPROACH AND OBJECTIVES

This remediation work plan details activities required to address PCB-affected soil at the facility. The remaining chemicals of concern (COCs) in soil and groundwater will be addressed through closure under the VCP. The proposed remediation will address all PCB-affected media and will significantly contribute toward completion of the closure of the site for all COCs under the TCEQ VCP.

4.1.1 Overall PCB Remediation Objective

The objective of the PCB remediation is to prevent PCB-affected soil from posing an unreasonable risk to health or to the environment, and to achieve regulatory closure through the EPA and TCEQ. This will be achieved through risk-based remediation methodology per 40 CFR 761.61(c) *Risk-Based Disposal Approval.*

4.1.2 Proposed Approach Summary

In addressing PCBs through the risk-based process, routes of exposure have been evaluated (see, Section 3) and will be minimized through the proposed response action. Excavated soils and concrete remediation dust will be handled under the Toxic Substances Control Act (TSCA), the Resource Conservation and Recovery Act (RCRA), and the Texas Solid Waste disposal rules. Soils generated during site remediation activities will be characterized to confirm classification as a Class I or Class II Non-Hazardous Waste under the Texas Solid Waste Rules. If material is classified as hazardous waste, it will be disposed off-site in accordance with both TSCA and RCRA. No disposal of PCB remediation waste at any landfill other than that approved to receive TSCA wastes will occur until the EPA provides concurrence with the information provided in this document. Information on landfills anticipated to receive wastes generated at the site is provided in Appendix C.

Final excavated soil disposition will be completed as follows:

- Affected on-site soils with PCB concentrations less than 500 mg/kg currently located in the proposed scrap receiving yard will be excavated and moved to the area that will be under the proposed clay cap.

- Soils excavated from on-site area containing greater than 500 mg/kg PCB (Hot Spot Area) that will require off-site disposal will be transported to a TSCA-approved chemical landfill facility.

- All excavated off-site soils with PCB concentrations greater than 1 mg/kg and less than 50 mg/kg will be disposed of at a landfill permitted by the state to manage non-municipal non-hazardous waste. Excavated off-site soils with PCB concentrations greater than 50 mg/kg will be transported to a TSCA-approved chemical landfill facility. The volume of soils removed will be based on whether the acquisition of the adjacent, undeveloped portion of Paxton Street is achieved.

Concrete proposed for removal from the Site will be assessed for PCB impact and remediated if appropriate. Some affected concrete may be encapsulated under the clay cap. A fenced-in clay cap will be placed over the on-site soils with PCB concentrations greater than 1 mg/kg and less than 500 mg/kg to prevent or minimize human exposure, infiltration of water, and erosion. PCB-affected soils will either be left in-place and capped or excavated and moved under the cap. An Operation and Maintenance Inspection Checklist will be implemented as part of post-closure care and is described in Section 4.2.6.3 and Appendix F of this application. The Site will be deed-recorded as part of the VCP closure to notify current and future occupants of the need to maintain the cap and/or limit exposure (example provided in Appendix E).

CMC is in the last stages of acquiring the adjacent, undeveloped portion of the Paxton Street right-of-way. Because the purchase of the Paxton Street property is not finalized as of the date of this submittal, this application presents two scenarios regarding remediation along the right-of-way. Scenario A assumes that Paxton Street is on-site and will be incorporated into the clay cap. Scenario B assumes Paxton Street is off-site, and soil excavated from this area will be disposed off-site at a landfill that is approved to receive wastes containing PCBs. Figures 11A and 11B depict the thickness and extent of the proposed clay cap in each scenario, respectively. Figures 12A and 12B depict excavation extent and required confirmation samples anticipated in each scenario, respectively.

4.2 REMEDIATION WORK PLAN DESCRIPTION

4.2.1 Remediation Preparation Activities

Prior to mobilization for remediation work, the Texas 811 system will be contacted to notify underground utility providers at the property of proposed activities in order to safely manage subsurface utilities during remediation activities. A site-specific Health and Safety Plan will be developed to address potential hazards associated with proposed remediation activities which will include airborne particulate monitoring. The airborne particulate concentrations will be monitored and logged during the site remediation activities using an aerosol monitor such as a Personal DataRAM (PDR). The action level for PCB in particulates was determined using half of the American Conference of Governmental Industrial Hygienists (ACGIH)-established nuisance dust concentration of 3.0 milligrams per cubic meter (mg/m^3). Therefore, a particulate action level of 1.5 mg/m^3 will be used. If particulate readings of 1.5 mg/m^3 are sustained in the air immediately downwind of concrete remediation activities or within the breathing zone of the remediation workers, dust control measures will be implemented. Dust control measures could include spraying the area with water or use of a wind screen. If these measures do not reduce particulate readings to less than 1.5 mg/m^3, remediation will stop until alternative dust control measures can be put into place and are demonstrated to be effective at reducing particulates to an acceptable level.

As part of Site preparation activities, field personnel will establish work exclusion zones, assemble material handling areas, construct material staging areas, as well as any additional stormwater controls deemed necessary for remediation activities. In addition, stormwater management and sediment controls described in the TMP will be maintained throughout the project site during remediation activities. Appendix D includes the TMP detailing stormwater controls and stormwater flow pathways from the site. Standard construction stormwater controls will be used during demolition, excavation, and clay cap construction activities. Upon completion of the Stormwater Retention Basin described in Section 4.2.6.2, stormwater from the South Area will be managed using that system. Stormwater runoff will flow naturally away from the clay cap in the North Area.

4.2.2 Concrete Sampling and Remediation Plan

Approximately 40% of the Site is currently paved with reinforced concrete (Figure 2). The concrete is between 9 and 12 inches thick. Demolition of some of this concrete will be required in order to complete soil excavation.

Concrete proposed for demolition with PCB concentrations greater than 1 mg/kg, but less than 50 mg/kg, will be disposed of under the clay cap, or at a chemical waste landfill permitted to receive material with PCB concentrations less than 50 mg/kg. Any concrete with concentrations between 50 mg/kg and 500 mg/kg will be placed under the clay cap or will be disposed of at a landfill approved under 40 CFR 761.61. Any concrete with PCB concentrations greater than 500 mg/kg will be remediated prior to breakup and disposal. Concrete dust generated during remediation will be disposed at a TSCA chemical waste landfill approved under 40 CFR 761.61. After concrete has been remediated, the destination of the remaining concrete will be determined based on results of confirmation sampling and will be disposed either off-site at a chemical waste landfill permitted to receive wastes containing PCBs less than 50 mg/kg or on-site under the clay cap.

4.2.2.1 Concrete Sampling Plan

Virtually all concrete from the southern portion of the property will need to be removed in order to access the underlying affected soils or construct the clay cap. Based on the previously anticipated site use as an active shredding area, concrete in the North Area, associated roads, and the Hot Spot Area were fully sampled during the February and November 2009 and February 2010 sampling events. Some buildings will need to be removed to construct the clay cap and to achieve excavation of soils affected with PCBs greater than 1 mg/kg from the portion of the Site anticipated for use as a scrap receiving yard. Select concrete samples will be collected in buildings planned for demolition in high-traffic areas likely to be affected by PCBs (concrete floors from equipment storage areas and building entryways, etc) to determine the residual concentrations of PCBs and the appropriate disposal method for the debris (Figure 9). If concrete remediation described in Section 4.2.2.2 is deemed necessary, concrete confirmation samples will be collected on a grid according to 40 CFR 761.280-298. Concrete sampling procedures are described below.

A pneumatic hammer drill with a small diameter (7/16 inch) rotary bit will be used to drill six holes, no deeper than 1 inch, into the concrete. Concrete dust particles produced by drilling will be swept into a 4 oz sample jar using disposable gloves and a small, clean paintbrush. Drill bits will be decontaminated between each sample location. Decontamination methodology will be performed by scrubbing the bits with water, rinsing with acetone, and wiping with a towel. All concrete samples will be analyzed for PCBs.

4.2.2.2 Concrete Remediation

Affected concrete on-site will either be disposed off-site, placed underneath the clay cap, or, if concentrations are greater than 500 mg/kg, remediated prior to removal.

Based on current sample results, the majority of concrete currently located on-site outside of the proposed capped area contains concentrations of PCBs less than 50 mg/kg. This concrete will be disposed of under the clay cap, or off-site at a chemical waste landfill permitted to receive wastes containing PCBs less than 50 mg/kg.

Depending upon the available space in the capped area, concrete from the affected area with concentrations greater than 50 mg/kg, but less than 500 mg/kg will be disposed on-site under the clay cap. If there is insufficient space under the clay cap, any remaining concrete with PCB concentrations exceeding 50 mg/kg will be disposed of at a landfill approved under 40 CFR 761.61.

Though no concentrations of PCBs in concrete greater than 500 mg/kg are currently noted at the site, if any future samples collected identify PCB concentrations exceeding 500 mg/kg, remediation will occur at that area. Remediation will be conducted by mechanical removal involving a combination of scabblers, scarifiers, shotblasting equipment, and chipping hammers to remove at least 1/8-inch of the surface of the concrete. The mechanical devices will be fitted with vacuum devices to collect concrete dust and chips. Concrete dust generated during remediation will be disposed at a TSCA-approved chemical waste landfill approved under 40 CFR 761.61.

If concrete remediation is performed, bulk concrete confirmation samples will be collected according to 40 CFR 761.280-298. After the concrete has been remediated, the destination of

remaining concrete will be determined based on these sample results and be disposed either off-site at a chemical waste landfill permitted to receive wastes containing PCBs less than 50 mg/kg or on-site under the clay cap.

4.2.3 Soil Excavation Plan

4.2.3.1 Hot Spot Soil Excavation and Confirmation Sampling

Soils will be excavated in the one area (PIB-4) with reported concentrations of PCBs greater than the cleanup level of 500 mg/kg. Excavation in the Hot Spot Area is expected to require soil removal in a 10 ft by 10 ft area to a depth of approximately 5 ft bgs. Excavated soils will be stockpiled as described in Section 4.2.3.4 and characterized for constituents other than PCBs as described in Section 4.2.7.1.

Confirmation samples will be collected from the excavation to verify that concentrations of PCBs less than 500 mg/kg remain. Confirmation sampling in the Hot Spot Area will use the same procedure as that proposed for the South Area described in Section 4.2.4. A total of approximately 21 composite confirmation samples (including bottom and sidewall samples) will be collected in the Hot Spot Area. Figures 12 A & B depict expected confirmation sample grids for the Hot Spot and the south areas.

4.2.3.2 Soil Excavation from the Non-Capped Area

Soils containing PCB concentrations greater than 1 mg/kg in the South Area will be excavated and moved to the proposed capped area (estimated at 6,000 cubic yards). Figures 12A and 12 B depict the extent of soils proposed for excavation.

4.2.3.3 Off-Site Soil Excavation

Soils containing PCB concentrations greater than 1 mg/kg have been identified on the adjacent properties to the west (City of Corpus Christi) and to the east (Ingram Ready Mix) and will be removed. Soils containing PCB concentrations greater than 50 mg/kg have been identified on the undeveloped portion of Paxton Street along the west Site boundary, between the CMC Site and the City of Corpus Christi property. Excavated soils will be stockpiled as described in Section 4.2.3.4.

On the City of Corpus Christi property, one excavation approximately 700 ft long, 20 ft wide, and 1-3 ft deep is proposed, as depicted on Figures 12A and 12B. A 36" diameter water line was identified in the vicinity of proposed excavation activities. Excavation by hand may be required in some areas to maximize protection of the water line.

On the Ingram Ready Mix property, one excavation approximately 700 ft long, 20 ft wide, and 1 to 2 ft deep is proposed as shown on Figure 12A and 12B. The proposed excavation areas are bounded on the west by a wall marking the CMC property boundary and on the east and south by an active Texas Mexican Railroad spur. Coordination with the Texas Mexican Railroad will be necessary in order to complete proposed excavation activities in this area.

CMC is in the last stages of acquiring the adjacent, undeveloped portion of the Paxton Street right-of-way. Because the purchase of the Paxton Street property is not finalized as of the date of this submittal, this application presents two scenarios regarding remediation along the right-of-way.

Under Scenario A, Paxton Street is considered on-site. The area will be incorporated into the clay cap, and no soil excavation will be required from this area. Figure 12A depicts confirmation sampling both on-site and off-site using this scenario.

Under Scenario B, Paxton Street is considered off-site, and soil excavated from this area will be disposed of off-site at a landfill approved to receive wastes containing PCBs. Under this scenario, one excavation approximately 370 ft long, 40 ft wide, and 3 to 6 ft deep is proposed as shown on Figure 12B. The proposed excavation area is bounded on the west by the City of Corpus Christi property and on the east by the CMC property. Surface soils in a portion of this excavation contain concentrations of PCBs that exceed 50 mg/kg. These surface soils will be excavated first, and confirmation sampling as described in Section 4.2.4 will be performed in the initial excavation to confirm that all soils containing PCB concentrations greater than 50 mg/kg have been removed. Upon confirmation that soils with PCB concentrations greater than 50 mg/kg have been removed, excavation for the remaining affected soils will be completed.

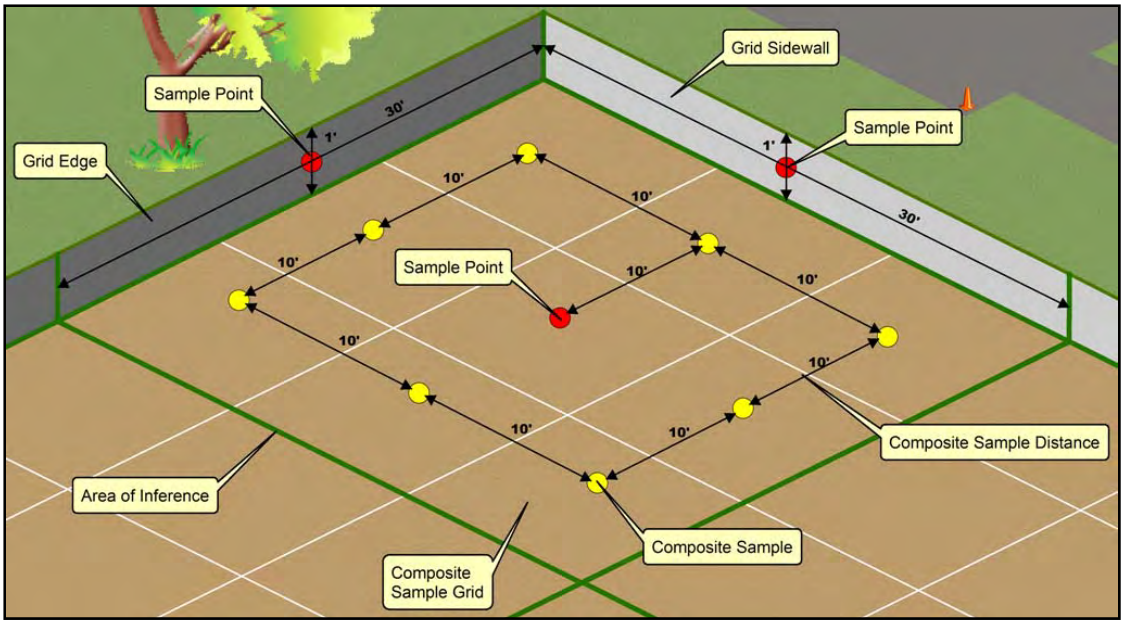
4.2.3.4 Soil Staging

Excavated PCB-affected soil anticipated for off-site disposal will be stored in a secure location within one or more designated soil staging areas on the facility. The exact locations of the soil staging areas will be identified prior to soil removal activities. Soils identified before removal as TSCA waste (PCB concentrations greater than 50 mg/kg) will be stored separately from soils affected with PCBs at concentrations less than 50 mg/kg.

Stockpiled soil will be lined and covered at all times with a waterproof plastic covering secured to remain in place during high winds and rain.

4.2.4 Post Verification Sampling (40 CFR 761.280-761.298; Addresses Item #2 in EPA's Letter Dated April 13, 2011)

Post verification samples will be collected using procedures outlined in 40 CFR Part 761, Subpart O with the following modifications. Instead of using the 5 ft sampling grid outlined in 40 CFR 761.283(b), CMC anticipates using a modified sampling grid of 10 ft. This is appropriate based on the size of the areas that will be sampled, and the spacing being one-fifth to one-tenth that approved for delineation sampling. One soil sample will be collected to a depth of 3 inches bgs from each of the 10-ft grid cells. Samples from nine adjacent grid cells will be composited into one sample for PCB analysis per 40 CFR 761.289(b)(1). A diagram showing the proposed sampling grid is illustrated below.



Grab samples will also be collected from excavation sidewalls using the same 30 ft grid interval. Approximately 209 composite samples (including bottom and sidewall samples) will be submitted for PCB analysis from the Non-Capped Area. Proposed post verification sample grid locations are presented in Figures 12A and 12B.

Upon completion of off-site excavation activities, post verification samples will be collected to verify that no concentrations of PCBs greater than 1 mg/kg remain in the soil. Confirmation samples will be collected as described in this Section from both the excavation sidewalls and excavation bottom. An approximate total of 110 composite confirmation samples (including bottom and sidewall samples) will be collected from off-site areas under Scenario A as shown in Figure 12A. Alternately, an approximate total of 263 composite confirmation samples will be collected from off-site areas under Scenario B as shown in Figure 12B. The composite confirmation sample total for Scenario B includes additional composite confirmation samples required after excavation of surface soils from Paxton Street to confirm removal of PCB concentrations greater than 50 mg/kg.

4.2.5 Clay Cap Conceptual Design (Addresses Item #4 in EPA's Letter Dated April 13, 2011)

All soil remaining on-site with PCB concentrations greater than 1 mg/kg will be capped with a clay cap. The cap will be designed and constructed as required under 40 CFR 761.61(a)(7), to include a compacted clay cap 6 inches or greater in thickness to isolate stormwater runoff from on-site soil affected by metals and PCBs and ensure that no precipitation can reach the underlying soils.

CMC is in the last stages of acquiring the adjacent, undeveloped portion of the Paxton Street right-of-way. Because the purchase of the Paxton Street property is not finalized as of the date of this submittal, this application presents two scenarios regarding remediation along the right-of-way. Scenario A assumes that Paxton Street is on-site and will be incorporated into the clay cap. Scenario B assumes Paxton Street is off-site, and soil excavated from this area will be disposed of off-site at a landfill approved to receive wastes containing PCBs. Figures 11A and 11B depict the thickness and extent of the proposed clay cap in each scenario.

4.2.5.1 Grading and Addition of Affected Soil Under the Proposed Cap

Depending on the remediation scenario selected, the area to be covered by the proposed clay cap will include an area of approximately 10.33 acres under Scenario A and approximately 9.69 acres under Scenario B. Under both scenarios, the cap would extend approximately 1,450 ft between the northern and southern boundaries of the Site. The area to be covered by the proposed cap under Scenarios A and B are shown in Figure 11A and 11B, respectively. Approximately 6,000 cubic yards of affected soil excavated from areas of the Site outside the proposed cap areas will be deposited in the areas to be capped. This volume will not change based on the selected remediation approach scenario. Affected soils that will not be added within the on-site cap area will be excavated soils from the Hot Spot Area with one historical data point having a reported PCB concentration of 2,670 mg/kg, and affected soil excavated from adjacent off-site areas. These soils will be excavated and transported to an approved off-site disposal facility.

4.2.5.2 Installation of Compacted Clay Cap

A compacted clay cap system will be installed to reduce infiltration of precipitation onto the affected soil after closure. The cap will be designed to direct stormwater runoff and minimize erosion of the side slopes. An estimated 35,000 cubic yards of imported clay materials will be utilized to construct the cap. The clay layer will consist of a minimum of 2 ft of clean clay soil, deposited and compacted with a maximum of 8-inch lifts to a minimum of 95% standard proctor. The clay layer will be contoured in the approximate configuration depicted in Figures 11A and 11B to achieve the required soil storage volume and slope. The surface of the cap will be contoured to minimize pooling or ponding of water. The slope of the cap will be contoured to facilitate the drainage of water at a grade of no less than 1% (0.01 ft/ft) and no greater than 5% (0.05 ft/ft) slope. The crown of the cap will be approximately 5 ft above the grade of the land surrounding the CMC property. Design of the cap may be modified slightly based on the actual volume of soil moved to the capped area.

4.2.5.3 Native Soil and Vegetation Layer

The compacted clay layer of the proposed cap system will be overlain with native soil with a minimum thickness of 0.5 ft to act as a growth medium for native vegetation. The native soil

layer will be constructed following the same contours as the clay layer and seeded for native vegetation. The vegetated layer will provide stability and erosion control, as well as aesthetic improvement to the cap system. Specific species of grasses will be selected for hardiness and to minimize landscaping maintenance.

4.2.6 Site Restoration

Areas of the site not located under the proposed cap system will be scraped and regraded to facilitate the flow of additional stormwater to a drainage and detention structure located at the northwest corner of the active portion of the Site (for receipt and transport of scrap metal material). Areas of excavated soil and void spaces after the removal of equipment and buildings from outside the footprint of the proposed cap will be backfilled with clean fill material.

4.2.6.1 Backfilling

After completion of excavation activities, some fill material from off-site sources may be added on-site in order to maintain the necessary elevations and grades for drainage and construction. Backfilling of off-site excavations will be performed to their original grades. One composite sample will be collected from each source of backfill material and analyzed for PCBs using EPA Method 8082 before the material is deposited into an excavation area. After addition of fill material, compaction, and grading will be performed as appropriate. All backfilling and grading activities off-site will be conducted after negotiations with off-site property owners.

4.2.6.2 Stormwater Retention Basin and Channels (Addresses Items #5 and #6 in EPA's Letter Dated April 13, 2011)

A system of drainage channels and a stormwater retention basin is proposed to capture and retain a 5-year storm event of stormwater runoff from the non-capped areas of the Site as described in *The City of Corpus Christi Drainage Criteria Manual (DRAFT)*. The design depth for the 5-year, 24 hour hypothetical event is 5.84 inches of rainfall depth according to *The City of Corpus Christi Drainage Criteria Manual (DRAFT)*. The channels and stormwater retention basin will capture the "first flush" of sediments on-site and retain them in the retention pond that is isolated from off-site drainage systems. It is generally accepted that the first 2 or 3 inches of runoff from impervious surfaces contain the contaminants that typically build up on impervious surfaces. Overflow weirs will also be constructed for runoff in excess of the 5-year storm volume to allow

discharge off-site to an adjacent existing drainage channel. A conceptual layout of the proposed stormwater management system is also depicted in Figures 11A and 11B.

The basic components of the stormwater management system are as follows:

- *Stormwater Channels and Culverts:* Shallow grass-lined drainage swales are proposed to receive runoff and direct flow to the proposed retention pond. The channels will be designed with a minimum slope of approximately 0.5% and up to 6 inches of freeboard during a 5-year storm event.

- *Retention Basin:* The proposed stormwater management system includes the construction of a stormwater retention pond located at the northwest extent of the Site to capture stormwater runoff from the non-capped area. Stormwater for the 5-year hypothetical event will be retained in the structure. The pond will require a capacity of 3.5 acre-feet to retain the 5-year hypothetical rain event. The capacity of the pond will be 151,200 cubic feet or 1.13 million gallons. The dimensions of the pond will be approximately 190 feet by 120 feet by 10 feet excluding side slopes.

  The retention pond will allow for a minimum of 6 inches of freeboard and include 2:1 side slopes with a maintenance ramp for ingress and egress of equipment used to clean the ponds and remove accumulated sediment as needed. The pond will be constructed of compacted clay or native soil. An overflow weir diverter structure will be configured to allow the controlled release of stormwater in exceedance of a 5-year storm event and prevent overtopping of the retention structure.

The final design will be based on field conditions. The final as-built design will be provided in the Response Action Completion Report (RACR) after construction is complete.

4.2.6.3 Post-Response Action Care Operations and Maintenance Plan (Addresses Item #4 in EPA's Letter Dated April 13, 2011)

As previously noted, the project will be subject to Deed Notice under the VCP and TRRP; an example deed notice is included as Appendix E. Post-response action care will include quarterly inspections of the cap area. Operation and Maintenance (O&M) activities will be performed as dictated by the O&M plan or by site conditions. An example O&M inspection checklist is included as Appendix F. O&M activities and inspections will include the following items in accordance with standard post-closure care requirements:

- *Fencing and Security*: The cap will be secured to prevent unauthorized entry and appropriate warning signs will be posted. Any damage to the security fence noted during the quarterly inspection will be repaired promptly, and the cap will be monitored for unauthorized use.

- *Post Closure Care Supervision*: Post-closure care will be under the supervision of the person responsible for environmental management of the site.

- *Post Closure Cap System Integrity*: The cap system will be inspected quarterly to assess its integrity. Special attention shall be paid to evidence of settlement/ponding, erosion of exposed clay cap material, evidence of cracking, and evidence of burrowing animals. Prompt remedial action will be taken if any of these items are discovered during an inspection. Repairs will be completed within 5 working days of discovery.

- *Final Cover*: The cap system will be inspected quarterly to verify that all affected soil remains covered. Documentation of discrepancies will be kept on-site. Any area noted as having erosion or settling will be repaired, and newly filled areas will be reseeded, refertilized, and watered to promote growth of the vegetation.

- *Vegetative Cover*: A regular mowing/landscape maintenance program will be instituted as part of the O&M plan to maintain the aesthetics and integrity of the vegetative cover layer. Areas found without proper vegetative cover will be reseeded and refertilized. Trees and other species that may have invasive root systems and are not part of the planned vegetative cover species will be promptly located, identified, and removed during routine O&M activities.

- *Sediment and Erosion Control*: All drainage structures and slopes will be maintained according to the final engineering design.

- *Stormwater Management System:* The stormwater management system will be inspected quarterly for signs of obstructed drainage and deteriorating or damaged channel or basin.

- *Groundwater and Surface Water Monitoring*: All groundwater and surface water monitoring will be performed in accordance with the O&M plan and the TRRP requirements for closure under the VCP.

- *Site Equipment:* Adequate equipment will be available to ensure that the requirements of the O&M plan are executed correctly and efficiently.

- *Post Closure Use of Site:* CMC will ensure that any post-closure use of the Site will not disturb the integrity of the cover or any component of the stormwater management or monitoring systems in accordance with the deed restrictions that will be enacted. Annual post response action care reports will be submitted to the TCEQ as required by the VCP. A copy of the report will be sent to EPA yearly.

4.2.7 Waste Characterization and Removal (Addresses Item #3 in EPA's Letter Dated April 13, 2011)

Soils excavated for off-site removal during remediation activities will be stockpiled on plastic and covered within one or more designated soil staging areas.

4.2.7.1 Waste Characterization Sampling

The stockpiled or stored soils will be sampled to determine whether the soil meets the disposal standards of a RCRA hazardous waste. Specific analyses will be selected based on landfill requirements, but may include Toxicity Characteristic Leaching Procedure (TCLP) metals (United States Environmental Protection Agency [USEPA] Method 6010), total petroleum hydrocarbons (TPH) (Texas Method 1005), TCLP volatile organic compounds (VOCs) (USEPA Method 8620), TCLP semi-volatile organic compounds (SVOCs) (USEPA Method 8270), and Reactivity, Ignitability, and Corrosivity.

Each soil pile will be divided into eight equally sized sections. An equivalent aliquot of soil (no metal or concrete rubble) will be collected from each section, at a location approximately 4 feet above the ground surface and approximately 1 foot deep below the pile surface. The eight aliquots of soil from each pile will be homogenized, and one sample will be collected from the homogenized material and placed into jars provided by the analytical laboratory for the specific analysis requested by the landfill. A grab sample for VOC analysis will be collected from a randomly selected location in the soil pile. The sample jars will be labeled with the name of the soil pile, date, sample time, and requested analysis.

In accordance with 40 CFR 761.61, in-situ soil sample results will be used to determine whether soils should be considered PCB regulated wastes.

4.2.7.2 Waste Disposal

Soils and concrete removed for disposal are regulated by 40 CFR 761.61. Landfills will also use the results of Waste Characterization Sampling to determine whether soils are acceptable for disposal under RCRA and the Texas Solid Waste Rules. If the removed material has PCB concentrations greater than 50 mg/kg and is deemed non-hazardous per RCRA, it will be transported to the TSCA-approved chemical landfill CSC Disposal & Landfill in Avalon, TX. If removed material has PCB concentrations less than 50 mg/kg and is deemed RCRA non-hazardous, it will be transported to a chemical landfill permitted by the State to receive PCB-affected material with concentrations between 1 mg/kg and 50 mg/kg, .i.e., El Centro Landfill in Robstown, TX. If removed, material has PCB concentrations greater than 50 mg/kg and is deemed hazardous per RCRA, it will be transported to the TSCA-approved chemical landfill,

Waste Control Specialists (WCS) in Andrews, TX. Details on the landfills likely to receive wastes and a potential transport company are included in Appendix C for EPA review and approval.

4.2.7.3 Disposal of Other On-site Soil Piles

A total of five soil piles have been identified at the Site. Two of the soil piles, identified as SP-02 (80 cubic yards [cyds]) and SP-05 (250 cyds) were removed from the Site in accordance with 40 CFR 761.61(a) during installation of a water line. One soil pile generated during construction of the water line, WC-01 (200 cyds) was also removed during these activities per 40 CFR 761.61(a). Removal occurred between April 1-3, 2009 to the CSC Landfill (a TSCA approved chemical landfill) in Avalon, Texas.

Three soil stockpiles are currently identified at the Site (SP-01 approximately 200 cyds, SP-03 approximately 60 cyds, and SP-04 approximately 200 cyds) and are shown in Figure 13. Because in-situ PCB sample results were not available, these soil stockpiles were sampled in February 2009 using the procedure described in Section 4.2.7.1 for PCBs. PCB concentrations from composite soil samples collected from the piles were reported as less than 50 mg/kg and are summarized in Table 5. These soil piles will be included in RCRA waste characterization sampling and will be moved to the capped area if RCRA waste characterization sampling results indicate it is appropriate to do so.

4.2.8 Institutional Controls (Addresses Item #4 in EPA's Letter Dated April 13, 2011)

Institutional controls will be placed on the affected property as part of the TRRP response action based on 30 Texas Administrative Code (TAC) 350.111 and as part of the TSCA response action based on 40 CFR 761.61(a)(8) (Appendix E includes Example Deed Notice). Institutional controls provide permanent notice to subsequent landowners that COCs are present at concentrations exceeding TRRP PCLs. Also, an Institutional control will impose conditions on future property use that are protective based on COC concentrations remaining in place. Institutional controls proposed will include: (1) the operation and maintenance requirements for the fence and cap as required by TRRP Remedy Standard B and 40 CFR 761(a)(8)(2), (2) limiting the site to commercial/industrial land use with low occupancy restrictions (3)

establishment of a Plume Management Zone (PMZ) to control COC concentrations exceeding TRRP PCLs in groundwater, (4) prohibition on installation of water wells onsite due to the existence of the PMZ, and (5) notification that the Site is being used for PCB remediation waste disposal with PCB concentrations on site at less than 500 mg/kg.

Remedy Standard B allows for the use of physical or institutional controls instead of the physical removal of affected material. The institutional control will detail the requirements for maintenance of the cap and prohibit its removal without appropriate prior approval from the TCEQ. Additional remediation may be required as part of cap removal to prevent exposure to potential receptors.

Because future use of the non-capped portion of the facility will be traditional secondary scrap metal recycling, commercial/industrial PCLs are appropriate for closure in the VCP. In using the commercial/industrial PCLs, an institutional control is required to notify interested parties that the Site is protective for that land use and may not be protective for residential land use.

The VCP Certificate of Completion, along with the above institutional controls, will be filed in the real property records of the county in which the site is located prior to site closure. The certificate provides a liability release for future property owners for the cleanup of areas covered by the certification.

4.3 PROPOSED SCHEDULE OF REMEDIATION ACTIVITIES

The schedule for remediation activities is proposed below. Because of the interrelated nature of these tasks, a delay in one task could push the sequence and schedule of the other tasks. Negotiations for the purchase of the adjacent, undeveloped portion of the Paxton Street right-of-way will occur concurrently with other remediation preparation activities. However, if negotiations are not successful by the beginning of scheduled remediation, implementation of the response action will not be delayed. This plan conforms with many of the self-implementing disposal approval provisions; therefore, we anticipate EPA approval of this Work Plan by September 2011 which will allow work to begin by December 2011. This schedule also assumes approval from off-site property owners to begin the excavation and backfilling activities as follows:

Activity	Anticipated Start Date
Approval of Application for Risk Based Cleanup by EPA	September 2011
Public Comment Period and Responses/Changes (if necessary)	October - November 2011
Final Engineering Design and Bid Specifications	December 2011 – January 2012
Bid Selection	February 2012
Relocation	March – April 2012
Concrete Demolition Activities	May 2012
On-Site and Off-Site Soil Excavation and Confirmation Sampling	June - July 2012
Backfilling of Excavated Areas and Construction of Clay Cap	August 2012
Final Grades, Stormwater Retention Improvements, and Final Fencing	October 2012
Final Summary Report submitted to EPA and TCEQ	December 2012

5. COMMUNITY OUTREACH PLAN (ADDRESSES ITEM #7 IN EPA'S LETTER DATED APRIL 13, 2011)

This application includes a Community Outreach Plan (COP) as set forth in Appendix G. The COP contemplates that, the proposed selected cleanup plan will be made available to the public during a 45-day public comment period, announced by EPA. If significant community interest is generated and a public meeting is requested during the public comment period, CMC's Corpus Christi facility will conduct a public meeting.

The COP is designed to be resilient in meeting any changing needs for information exchange or interaction between the public, CMC, and the regulators.

6. REFERENCES

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APPENDIX A

APRIL 13, 2010 EPA LETTER OF APPROVAL OF GEOSTATISTICAL EVALUATION AND GEOSTATISTICAL EVALUATION

APPENDIX B
EDR WATER WELL SURVEY

APPENDIX C
DISPOSAL FACILITY INFORMATION AND CERTIFICATIONS

APPENDIX D
TEMPORARY MEASURES PLAN

APPENDIX E
EXAMPLE DEED NOTICE

APPENDIX F
EXAMPLE OPERATION AND MAINTENANCE INSPECTION CHECKLIST

APPENDIX G
COMMUNITY OUTREACH PLAN